

Procedure to fix leaking Duetto Brew boiler element

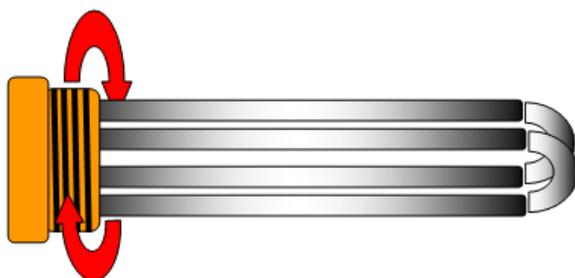
Ensure you have:

- 1 Roll of PTFE tape
- 1 roll of Hawk Special Fibre
- 1 Strap wrench (if you do not intend to remove the brew boiler)
- Wide jaw adjustable wrench (available for around £8.99 on e-bay)



Switch off the PID, you do this by pressing the Right Hand PID button when the machine is on (the display should then show "Off". Switch the Duetto off, **UNPLUG FROM THE MAINS** and remove the outer case of the Duetto. Then remove the plate below the brew and steam boilers (it has 4 screws on it), this gives access to the heating elements. Remove the wires from the brew boiler heating element (the connectors simply pull off).

1. Place the machine on supports for access, remove heating element and clean threads, remove any gasket being used (a gasket is not required). Tip: having the brew lever in the upright position (brew position) will ensure that there is no Vacuum and allow the water to drain more gradually, rather than gushing out as the heating element is removed, use a plastic bowl to catch the water.
2. Place approximately 10-15 turns of PTFE tape on the threads of the heating element (the tape should be put on in the direction shown



3. Wrap approx 10-12 turns of Hawk special fibre in the same direction, attempting to keep it in the grooves of the threads
4. Finally wrap **ONLY** 1.5 turns of PTFE tape over the hawk special fibre to hold it in place.

The heating element should be screwed into the boiler with your fingers and it should almost immediately start to feel very tight. Have a second person to help and place the strap wrench around centre of the boiler (its difficult but can be done); they should

apply a counter torque against the force you will be using to screw the element into the boiler (to avoid bending the pipes). Alternatively remove the boiler to do this.

Use the wide mouth wrench to screw the heating element into the boiler...you will have to use the wrench in an upright position to have sufficient clearance to do this. This means it will be difficult to apply sufficient force...to help with this, use an open ended spanner across the neck of the wrench as shown.



You will need a helper to apply counter torque with the strap wrench and they must tell you if they are unable to prevent the brew boiler from twisting. A reasonable amount (but not excessive force) will be required to screw the element into the boiler, if the helper cannot stop the boiler from twisting, you may simply have too much PTFE tape or special fibre on the heating element, remove and try a little less.

ONCE STARTED DO NOT UNDO THE HEATING ELEMENT A LITTLE AND THEN RE TIGHTEN, CONTINUE ONLY IN A ANTI-CLOCKWISE DIRECTION TO TIGHTEN.

The heating element does not need (and should not) to be screwed completely into the brew boiler (remember you do not have a gasket.... leaving a 3-4mm gap between the brew boiler and the flange of the heating element will be absolutely fine.

Fill the water tank reconnect the brew boiler heating element wires and whilst observing the base of the brew boiler, pull a shot against the blind filter (with the boiler cold), no water should leak out (remember the PID should be off at this point).

Replace the outer case, power up the machine and switch the PID on. Do not at this time replace the place below the heating element. Allow the machine to heat up and check for leaks. Over the next few days check the machine for leaks each morning. This ensures the expansion and contraction of the brew boiler when the machine is switched off each night and on each morning, is not affecting the seal. If after a couple of days no leaks are observed, replace the bottom plate.

Note: if it does leak, then repeat the whole procedure, but use more PTFE and/or Hawk special fibre,